

TEAC

SERVICE MANUAL

A-H300

Integrated Stereo Amplifier

NOTES

- PC boards shown are viewed from parts side.
- The parts with no reference number or no parts number in the exploded views are not supplied.
- As regards the resistors and capacitors, refer to the circuit diagrams contained in this manual.
- ⚠ Parts marked with this sign are safety critical components. They must be replaced with identical components- refer to the appropriate parts list and ensure exact replacement.
- Parts of [] mark can be used only with the version designated.
[E]: EUROPE

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Specifications

Power output	: 35W + 35W (80 Ω , 1kHz, 0.1%)
Total harmonic distortion	: 0.05% (30W, 1kHz, 8 Ω)
S/N Ratio (Input Short)	
Phono	: 70dB (IHF-A)
CD, Tuner, Aux, Tape	: 95dB (IHF-A)
CD direct	: 95dB (IHF-A)
Input Sensitivity/ Impedance	
Phono(MM)	: 2.6mV/10k Ω
CD, Tuner, Aux, Tape	: 180mV/10k Ω
Maximun Input level	
Phono	: 100mV
CD, Tuner, Aux, Tape	: 8V
Channel Separation(Input Short)	: 70dB (1kHz, 1W, D.B.F)
Residual noise	: 0.9mV

Frequency response	: 5Hz to 80kHz
Tone control	
Bass	: ± 10 dB (100Hz)
Treble	: ± 10 dB (10kHz)
Required speaker impedance	
	: 8 Ω to 16 Ω
Power consumption	: 85W [EUR]
Power requiremnts	: AC 230V, 50Hz [EUR]
Dimensions (W \times H \times D)	: 215 \times 110 \times 305mm
Weight(net)	: 4.2kg

Standard accessories

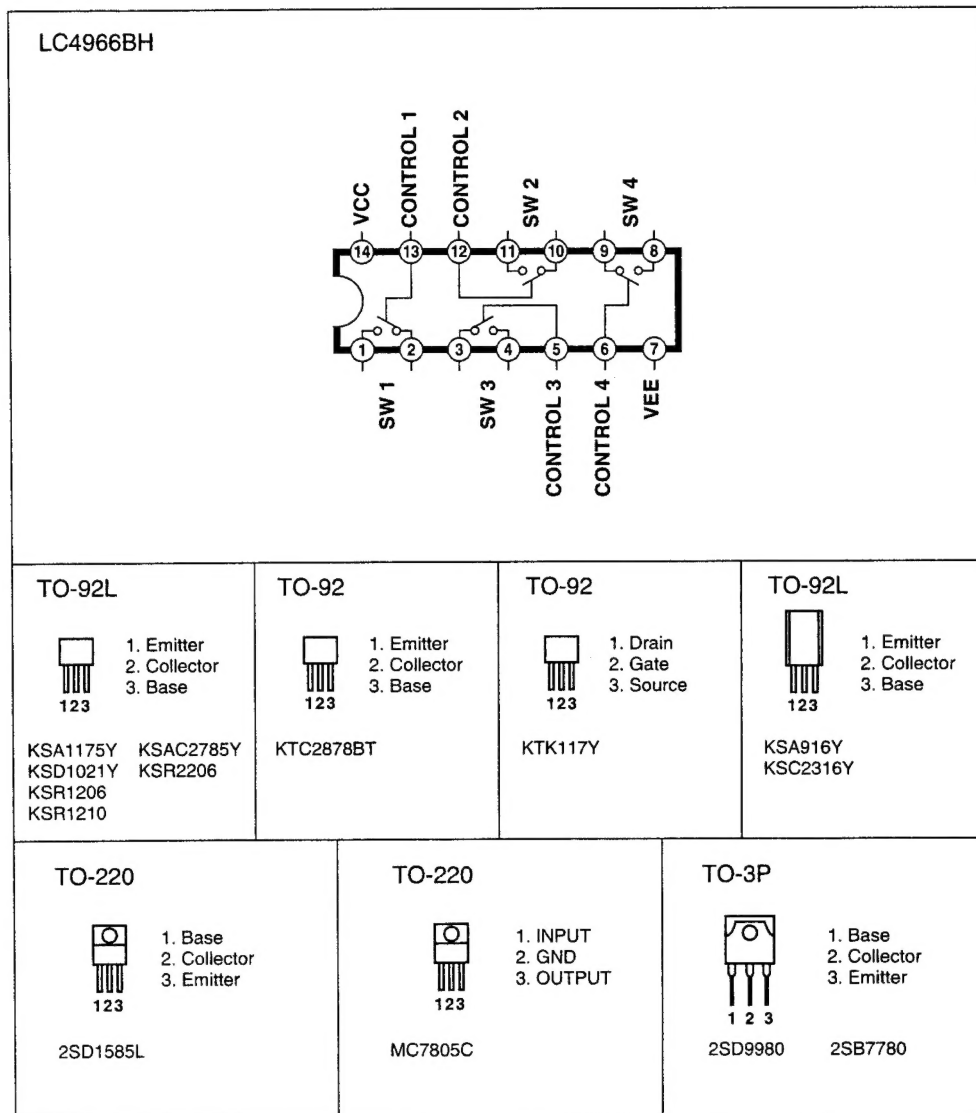
Remote control unit	: 1
Operator's manual	: 1

* Improvements may result in specification or feature changes without notice.

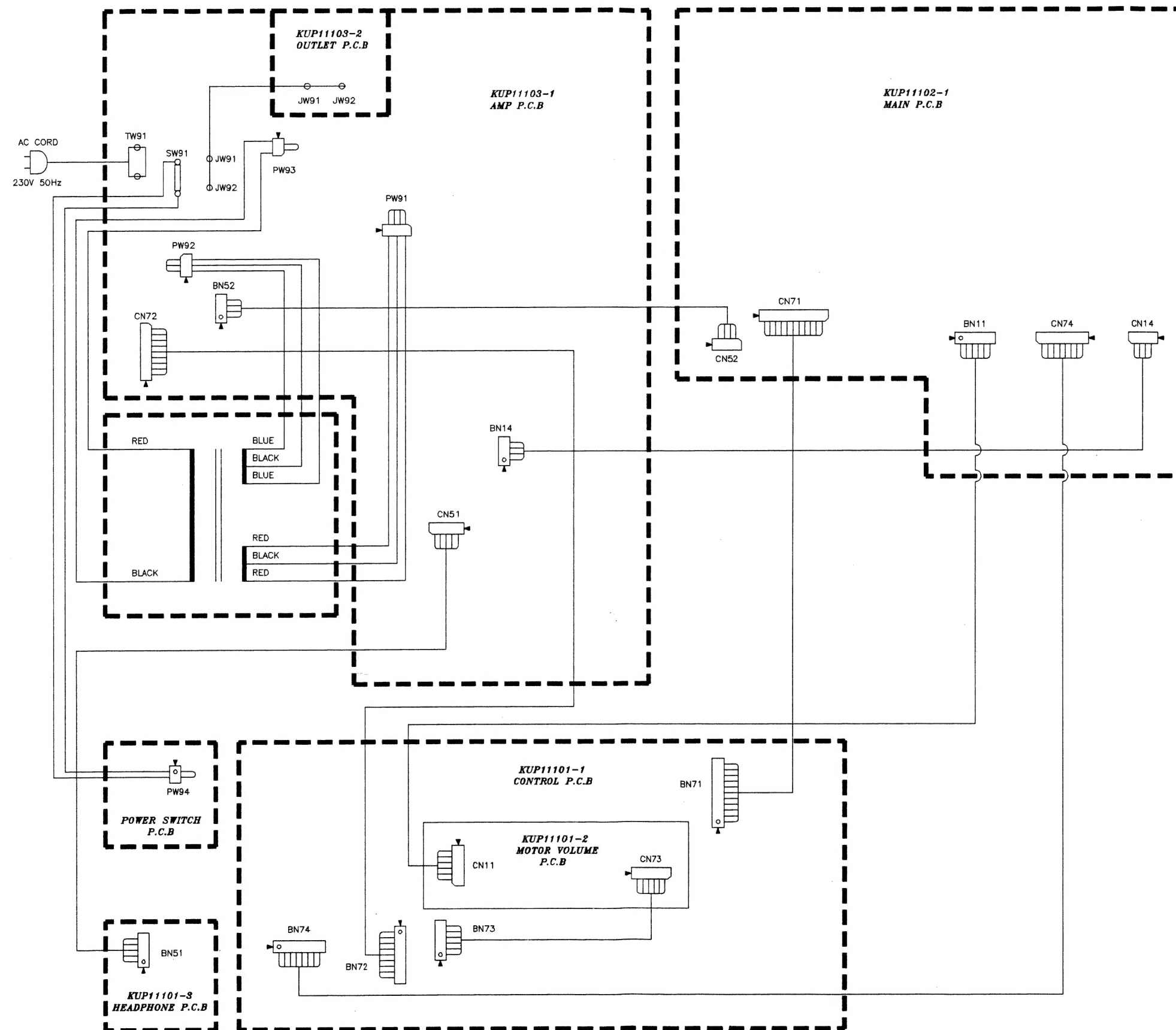
IC FUNCTION (MI-COM BVIANAM 1224A)

Pin No.	PIN NAME	I/O	DESCRIPTION
1	FUNC MUTE	O	Function, Mute ON/OFF Output
2	-20dB MUTE	O	-20dB Mute ON/OFF Output
3	POWER MUTE	O	Power Mute Output
4	SOURCE REC, OUT	O	Source recoding Output
5	OPTION	I	Option port "HIGH" LEVEL
6	OPTION	I	
7	PROTECT IN	I	Protect Input
8	STBY	O	Stand by LED ON/OFF Output
9	POWER ON/OFF	O	Power ON/OFF Output
10	AUX	O	Function LED ON/OFF Output
11	PHONO	O	Function LED ON/OFF Output
12	N/C		Non connection
13	TUNER		
14	CD	O	Function LED ON/OFF Output
15	TAPE 1		
16	TAPE 2/MD		
17	Vss	I	GROUND
18, 19	N/C	I	Non connection
20	RESET	I	Divice reset pluse input
21	XL 1	O	Crystal element connection terminal
22	XL 2	I	
23	TAPE 2 → 1	O	TAPE1,2 Recording Output
24	TAPE 2 → 1		
25, 26	KEY OUT	O	Key mqtrix singal IN/OUT PORT
27, 28	KEY IN	I	
29	TAPE2 REC IN	I	TAPE2,1 Recording Input
30	TAPE1 REC IN	I	
31	SOURCE REC, OUT	O	Source recoding Output
32, 34	N/C		Non connection
33	FUNC DOWN	I	Function UP/DOWN Input
35	FUNC UP	I	
36	BUS IN	I	System control simgal Input
37	REMOTE IN	I	Remote control simgal Input
38	N/C		Non connection
39	VDD	I	+5V
40	BUS OUT	O	System control singal Output
41	N/C		Non connection
42	VR UP	O	Volum UP/DOWN Output
43	VR DOWN	O	
44	CD DIRECT	O	CD Direct led ON/OFF Output

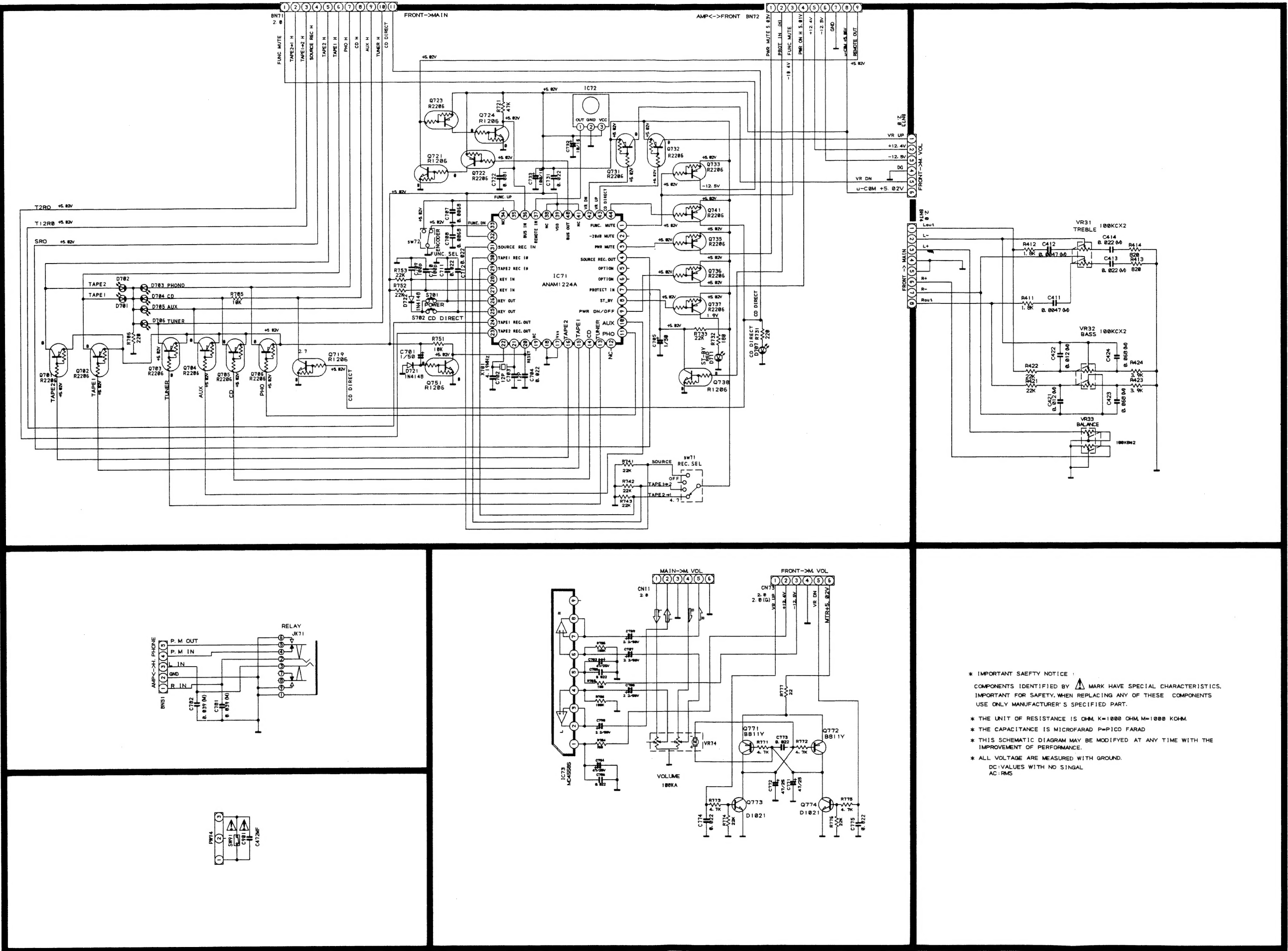
IC BLOCK DIAGRAM

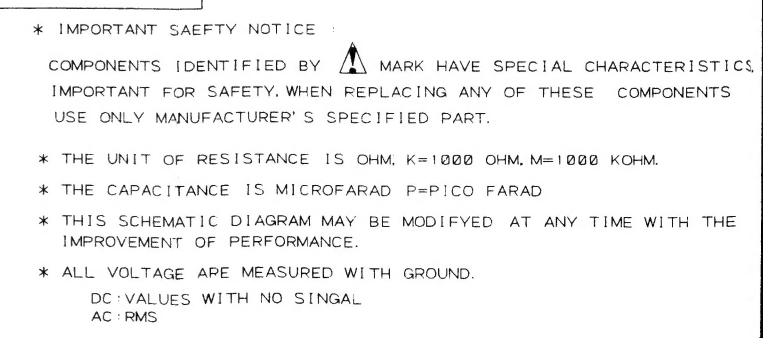


WIRING DIAGRAM

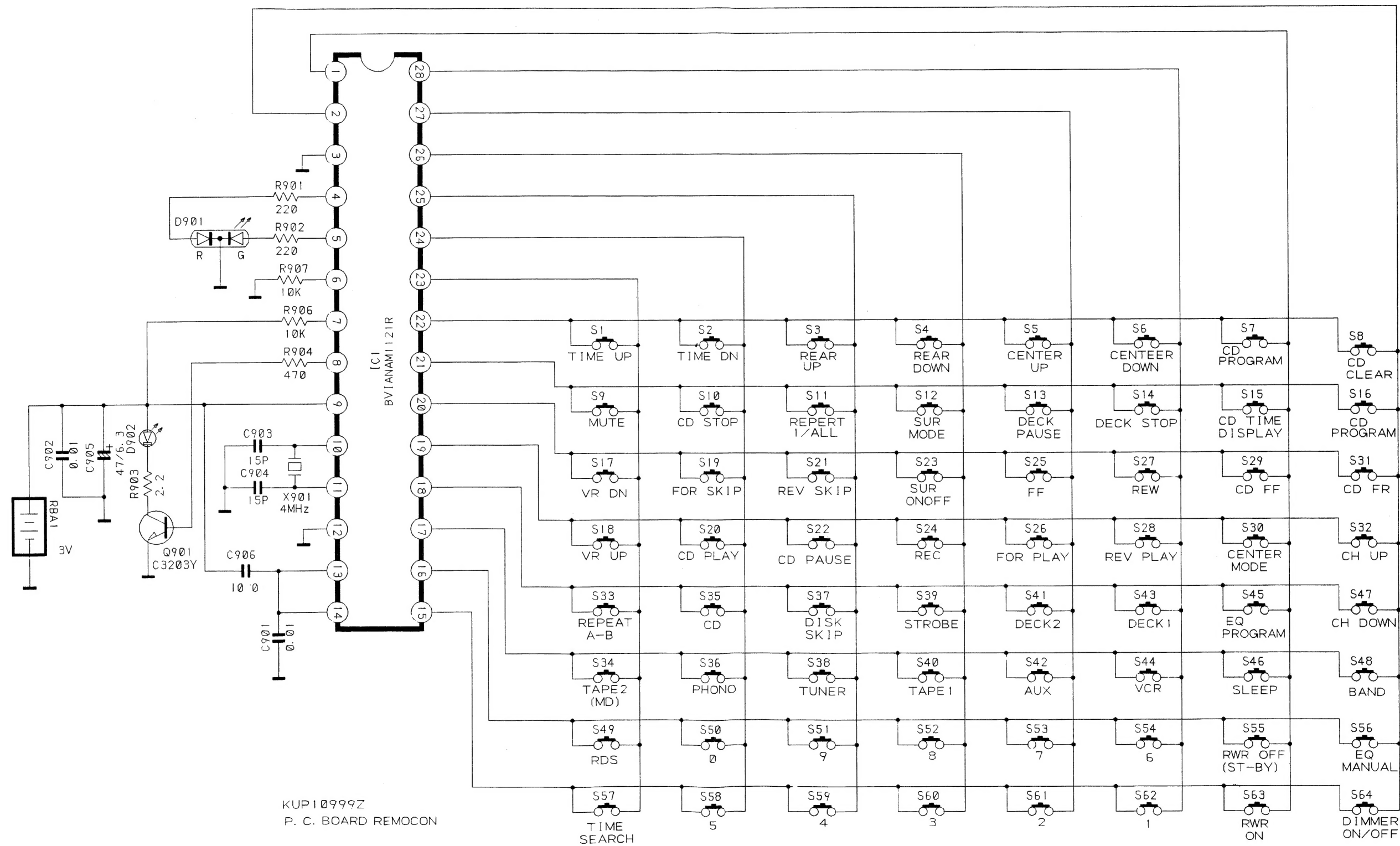


SCHEMATIC DIAGRAM

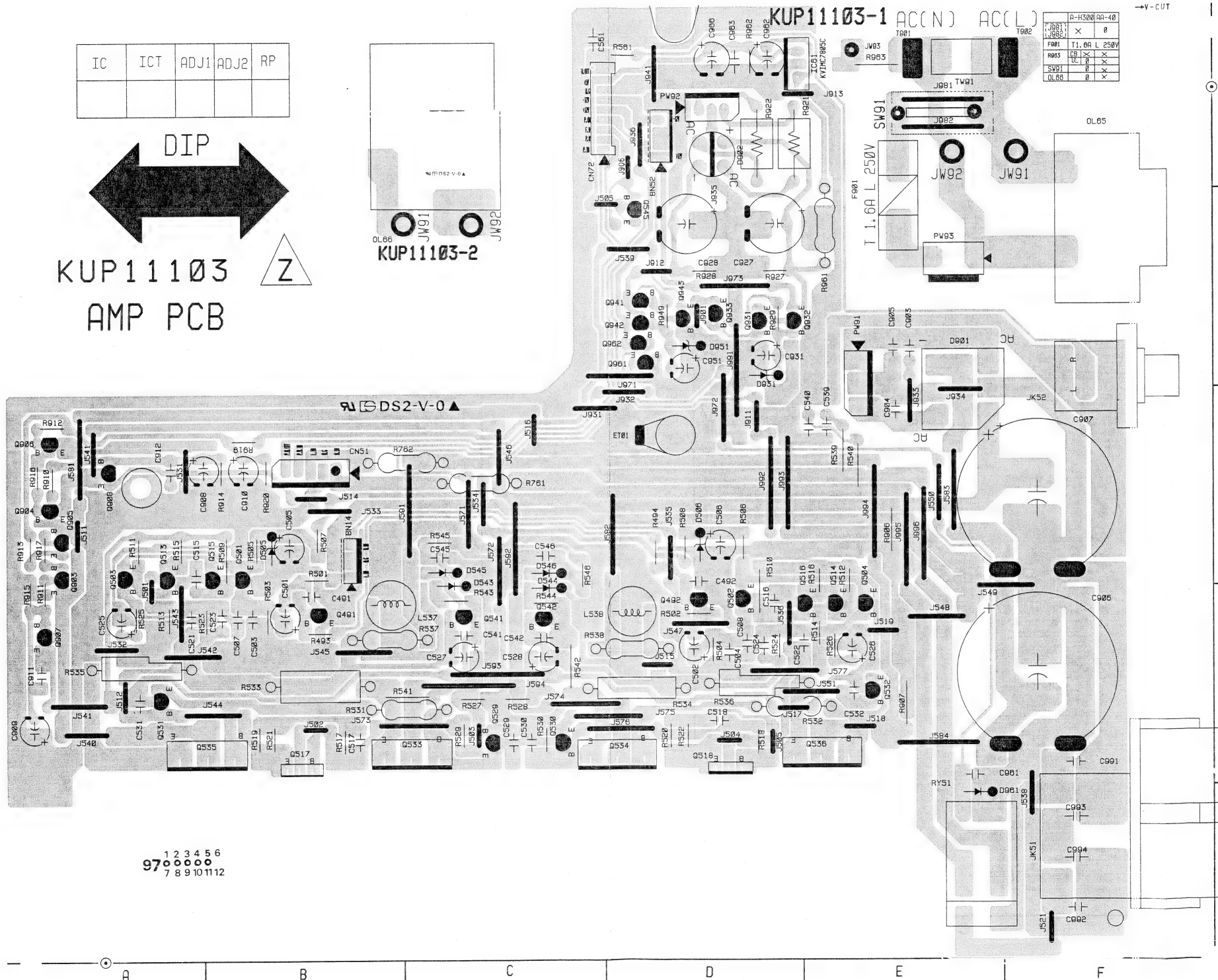




REMOTECONTROL SCHEMATIC DIAGRAM



PRINTED CIRCUIT BOARDS



EXPLODED VIEW

This exploded view diagram illustrates the assembly of a complex electronic device, likely a medical imaging system. The components are numbered 1 through 39, with some parts specified by quantity (e.g., S1 x7, S8 x4). The diagram shows the following major sections:

- Top Housing:** A large rectangular enclosure (1) with a front panel (2) and a top cover (3).
- Internal Components:** A central processing unit (4) with a fan (5) and a power supply (6). A large heat sink (7) is mounted on the bottom of the unit.
- Front Panel:** A control panel (8) with various buttons (9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19) and a display (20).
- Back Panel:** A rear panel (21) with a connector (22) and a fan (23).
- Base and Mounting:** A base plate (24) with mounting brackets (25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39) and a fan (40).

The diagram uses standard engineering notation for fasteners and quantities, such as S1 x7, S8 x4, and S2 x3.

EXPLODED VIEW PARTS LIST

Ref. No.	Part No.	Description	Remarks
1	9A06864500	PANEL, FRONT	
2	9A06830500	FRNT, PANEL	
3	9A06863300	INDICATOR, STANDBY	
4	9A06862700	KNOB, STANDBY	
5	9A06862500	KNOB, STANDBY	
6	9A06863500	WINDOW, SENSOR	
7	9A06863400	INDICATOR, FUNCTION	
8	9A06227400	INDICATOR, POWER	
9	9A06862600	KNOB, DIRECT	
10	9A06864900	FRONT PCB ASS'Y	
11	9A06862300	KNOB, POWER	
12		PUSH SWITCH ASS'Y	
13		MOTOR VOLUME	
14		WASHER	
15		NUT	
16		PHONE JACK PCB ASS'Y	
17		LOCKING SUPPORT	
18	9A06224200	BADGE, TEAC	
19	9A06862400	KNOB, ROTARY	
20	9A06866100	BOTTOM CHASSIS ASS'Y	
21	9A06864400	FOOT	
22	9A05837300	FOOT CUSHION	
23	9A06864300	PANEL, REAR	
24		TRANS	
25	9A01375500	PCB HOLDER	
26	9A06865100	AMP PCB ASS'Y	
27		AC OUTLET PCB ASS'Y	
28	9A06864600	BRACKET, PCB	
29	9A06865000	MAIN PCB ASS'Y	
31	9A06754900	BUSHING, AC CORD	
32	9A05328100	CORD, POWER	
33	9A05917200	GROUND TERMINAL	
34	9A06864200	CABINET, TOP	
36	9A06697200	HOUSING, VOLUME A4-96-2578	
37	9A06677700	VOLUME CAP ASS'Y (A)	
38	9A06228800	VOLUME CAP ASS'Y	
39	9A06228300	VOLUME CAP ASS'Y (B)	
S1	9A01377400	SCREW, KTB3+10G	
S2		SCREW KTS3+6J	
S3	9A06866000	SCREW KTS3+8G	
S4	9A05339200	SCREW KTW3+8J	
S5	9A05338800	SCREW KTB4+6F	
S7	9A05339100	SCREW KTW3+12J	
S8	9A01535800	SCREW, KTB3+8J	

ELECTRICAL PARTS LIST

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
	9A06864900	FRONT PCB ASS'Y	C111, C112	9A06696300	CQ, 0.0056UF J 50V
	9A06866300	PCB, FRONT	C113, C114	9A06695900	CQ, 0.022UF J 50V
BN51	9A06866800	WIRE ASS'Y	C117, C118	9A06693600	CE, 47UF H 25V DC
BN71	9A06867000	WIRE ASS'Y			
BN72	9A06867100	WIRE ASS'Y	IC11	9A05195800	IC, MC4558S
BN73	9A06867200	WIRE ASS'Y	IC12~IC18	9A05971200	IC., LC4966
BN74	9A06867300	WIRE ASS'Y	IC19~IC21	9A05195800	IC, MC4558S
CN11	9A05329700	WAFER MOLEX53014-0610	JK10	9A06674900	JACK, BOARD 4R014Z
CN73	9A05329800	WAFER GS, 2M/M, 6P	JK11	9A06864100	TERMINAL, IN/OUT(G)
			JK12	9A06675000	JACK, BOARD 4R019Z
C411, C412	9A06696100	CQ, 0.0047UF J 50V	Q101~Q104	9A05896000	TR., KTC2878B
C413, C414	9A06695900	CQ, 0.022UF J 50V	Q107, Q109	9A05196900	TR, KSR1206TA
C421, C422	9A06695700	CQ, 0.012UF J 50V	Q111, Q113	9A05196900	TR, KSR1206TA
C423, C424	9A06861700	CAP, MYLAR 1H683JZ3	Q115, Q211	9A05196900	TR, KSR1206TA
C732	9A06787400	CE, 10UF K 16V DC	Q123, Q215	9A05196900	TR, KSR1206TA
C733	9A06693400	CAP, ELECT KCEA1CKS101T	Q217, Q219	9A05196900	TR, KSR1206TA
C783, C784	9A06693600	CE, 47UF H 25V DC	Q221	9A05196900	TR, KSR1206TA
C901	9A06692300	CC, 4700PF M F 25V	Q108, Q112	9A03745200	TR, KSR2206TA
D721, D722	9A01390500	DIODE, 1N4148MT	Q114, Q116	9A03745200	TR, KSR2206TA
IC71	9A06862000	I.C ANAM 1224A	Q212, Q214	9A03745200	TR, KSR2206TA
IC72	9A06757900	IC, PNA4612MO0HB	Q216, Q218	9A03745200	TR, KSR2206TA
IC73	9A05195800	IC, MC4558S	Q220, Q222	9A03745200	TR, KSR2206TA
JK71	9A06861800	JACK, HEADPHONE		9A06865100	AMP PCB ASS'Y
				9A06866500	PCB, AMP
Q701, Q706	9A03745200	TR, KSR2206TA	BN14	9A06866700	WIRE ASS'Y
Q719	9A05196900	TR, KSR1206TA	BN52	9A06866900	WIRE ASS'Y
Q721, Q724	9A05196900	TR, KSR1206TA			
Q732, Q733	9A03745200	TR, KSR2206TA	CN51	9A05894700	WAFER (5P)
Q735~Q738			CN72	9A05330500	WAFER KJP09GA47ZG
Q741	9A03745200	TR, KSR2206TA			
Q751	9A05196900	TR, KSR1206TA	C501, C502	9A06694200	CE, 2.2UF H 50V DC
Q771, Q772	9A03747300	TR, KSB811-YTA	C505, C506	9A06693600	CE, 47UF H 25V DC
Q773, Q774	9A03811700	TR, KSD1021-YTA	C525, C526	9A06693200	CE, 100UF H 16V DC
			C527, C528	9A06694500	CE, 4.7UF H 50V DC
PW94	9A06867400	WIRE ASS'Y	C539, C540	9A06696200	CQ, 0.047UF J 50V
SW71	9A06326800	SW, ROTARY SRBV14065A	C903, C905	9A06695900	CQ, 0.022UF J 50V
SW72	9A06224700	VR, ENCODOR EC16B1210	C906, C907	9A06862900	CAP, ELECT TSMK63V472
SW91	9A06784700	SW, PUSH (MOMS)	C908, C909	9A06694200	CE, 2.2UF H 50V DC
VR31, VR32	9A06862100	RES, VARIABLE 01C104Y	C910	9A06693300	CE, 220UF H 16V DC
VR33	9A06673100	RES, VARIABLE 03B104Y	C911, C912	9A06696100	CQ, 0.0047UF J 50V
VR74	9A06862200	VOLUME, MOTOR	C927, C928	9A06226700	CE, 1000UF H 25V DC
X701	9A05192900	CRYSTAL, DC-D1800	C931, C951	9A06693200	CE, 100UF H 16V DC
	9A05328100	CORD, POWER	C961	9A06696200	CQ, 0.047UF J 50V
	9A06830300	TRANS POWER	C962, C966	9A06693200	CE, 100UF H 16V DC
			C991, C992	9A06695500	CQ, 0.0010UF J 50V
	9A06865000	MAIN PCB ASS'Y	D505, D506	9A05193600	DIODE, ZENER MTZJ15BT
BN11	9A06866600	WIRE ASS'Y	D543, D546	9A01390500	DIODE, 1N4148MT
CN14	9A05356300	WAFER 04GA 19ZM	D901	9A05353100	DIODE, BRIDGE PBPC604F
CN52	9A05329300	WAFER MOLEX 5267-04A	D902	9A05987000	DIODE, BRIDGE W02GF
CN71	9A05330900	WAFER MOLEX-53014	D931, D951	9A06765200	DIODE, MEZJ13BT
CN74	9A05330300	WAFER MOLEX53014-0810			

ELECTRICAL PARTS LIST

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
D961	9A01390500	DIODE, 1N4148MT	Q535, Q536	9A05359700	TR, KTB7780
ET01	9A05333900	PLATE, EARTH	Q541, Q542	9A03745100	TR, KSA1175-YTA
F901	9A05353400	FUSE F1.6A	Q545	9A03745200	TR, KSR2206TA
IC61	9A05341500	IC, KA7805-ABTU	Q903	9A03745000	TR, KSC2785-YTA
JK51	9A06677000	TERMINAL SP	Q904, Q905	9A03745100	TR, KSA1175-YTA
JK52	9A06864000	JACK, BOARD	Q907, Q942	9A05196700	TR, KSA916-Y-SHTA
JW91, JW92	9A06867600	WIRE ASS'Y	Q908, Q932	9A05196800	TR, KSC2316-Y-SHTA
L537, L538	9A04875100	COIL, DC-D2100	Q931, Q943	9A03745200	TR, KSR2206TA
OL66	9A06861900	OUTLET, AC(1P)	Q961	9A03745200	TR, KSR2206TA
PW91	9A05329300	WAFER MOLEX 5267-04A	Q933, Q941	9A05196900	TR, KSR1206TA
PW92	9A05329100	WAFER MOLEX 5267-03A	Q962	9A05196900	TR, KSR1206TA
PW93	9A06674400	WAFER	RY51	9A04879000	RELAY, OSA-SS-212DM3
PW94	9A06867400	WIRE ASS'Y	R531, R532	9A06234600	RES, METAL OXIDE FILM
Q491, Q492	9A05896000	TR., KTC2878B	R533, R536	9A06062000	R, CEMENT 0.27 2W
Q501, Q502	9A05341600	TR, KSA992-FTA	R537, R538	9A05896400	R., 4.7-OHM, 1W
Q503, Q504	9A05341600	TR, KSA992-FTA	R761, R762	9A05338200	R, METAL OXIDE FILM 1W 390
Q513, Q514	9A03745000	TR, KSC2785-YTA	R921, R922	9A06760900	R, FUSE 0.47 J 1W
Q515, Q516	9A03745000	TR, KSC2785-YTA	R961	9A06865900	RES, METAL OXIDE FLIM
Q517, Q518	9A06676000	TR KTD2058Y	TW91	9A06538200	WAFER SYFW800-02P
Q529, Q530	9A05196800	TR, KSC2316-Y-SHTA			
Q531, Q532	9A05196700	TR, KSA916-Y-SHTA			
Q533, Q534	9A05359800	TR, KTD9980			